

REMARKS

The foregoing amendment amends claim 40 to include the subject matter of claim 43, which is now canceled. New independent claims 50 and 51 are added. Namely, claim 40 is amended to specify that the battery is rechargeable via ambient power in the environment. Pending in the application are claims 28-40, 42-45 and 48-51, of which claims 28, 34, 40, 48, 50 and 51 are independent. The following comments address all stated grounds for rejection and place the presently pending claims, as identified above, in condition for allowance.

The sole amendment to the claims involves amending independent claim 40 to include the subject matter of previously-examined claim 43, now canceled.

New claims 50 and 51 are directed to originally claimed subject matter and further recite that the label provides a combination which is cooperatively operable to activate the electronic ink to cause the imaging material to provide enduring activation thereof independent of maintenance of the signals for instructing the imaging material to display the indicia. Claims 50 and 51 further recite that the electronic ink provides a display related to the intended function of the label, and that the electronic ink material allows the display to remain stable and visible.

Amendment and/or cancellation of the claims are not to be construed as an acquiescence to any of the objections/rejections set forth in the instant Office Action, and were done solely to expedite prosecution of the application. Applicant reserves the right to pursue the claims as originally filed, or similar claims, in this or one or more subsequent patent applications

Double Patenting Rejections

Claims 1-49 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of Application No. 09/393,553 (now U.S. Patent Number 6,924,781). The Examiner also provisionally rejects claims 1-49 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of Application No. 09/760,363 (now U.S. Patent Number 6,753,830).

Applicant traverses the provisional obviousness-type double patenting rejection of the claims as being unpatentable over the claims of U.S. Patent Number 6,924,781, which is based

on Application No. 09/393,553 and U.S. Patent Number 6,753,830, which is based on Application No. 09/760,363. The claims of the present application are patentably distinct from the claims of copending Application No. 09/393,553 and U.S. Patent Number 6,753,830. For example, pending claims 28-33 of the present application recite a flexible antenna strip connected to a shelf, a feature not claimed in the co-owned patent and patent application. Claims 48 and 49 recite a label having a radio-frequency identification (RFID) layer, a feature also not solely claimed in the co-owned patent and patent application. Claims 28-39 of the present application also recite a shelf, which is not claimed by the cited co-owned applications.

The claims of U.S. Patent Number 6,924,781 recite an electronic ink comprising an arrangement of microcapsules disposed on a support, a feature not found in claims 20, 104 and 125 of the present application, which recite an electronic ink comprising a bi-stable, non-volatile imaging material. Furthermore, the claims of the U.S. Patent Number 6,753,830 recite a stacked, layered electronic label comprising a plurality of cooperative layers, a feature not disclosed in the claims of the present application.

If necessary, Applicant will file a terminal disclaimer to overcome the double patenting rejection.

Claim Rejections Under 35 USC § 102

In the Office Action, the Examiner rejects claims 48-49 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Number 6,639,578 of Comiskey et al. Applicant traverses the rejection on several grounds and submits that claims 48 and 49 distinguish patentably over the cited Comiskey '578 reference.

The Comiskey '578 reference does not disclose a flexible integrated circuit layer, as recited in claim 48. Rather, the backplane 837, electronics 834 and drive circuitry 836 of the tile display Comiskey '578 appear to be rigid. In addition, the tile display of Comiskey '578 does not comprise three layers: a display layer, an integrated circuit layer, and an RFID layer, stacked together, with the integrated circuit layer in the middle and the display layer and RFID layer on either side, as also set forth in claim 48.

The cited Comiskey '578 reference also does not teach or suggest an electronic label including an RFID layer, as set forth in independent claim 48. According to the Examiner, because the Comiskey reference discloses circuitry for decoding frequency information, an RFID layer stacked with an integrated circuit and a display layer is disclosed. Applicant respectfully disagrees.

As set forth in the specification on page 15, lines 2-9, RFID is a wireless communications device that transmits and receives data via *two*-way radio. An RFID layer includes a transceiver and an antenna to facilitate both transmission and reception of data related to the information to be displayed by the display layer 30. Therefore, the actual label may send data to a remote device via radio waves, rather than merely receive data. The RFID layer may communicate with a remote controller or device, such as a personal computer or a PDA, which runs an application program that controls and interfaces with the RFID equipment and provides instructions regarding the information to be displayed by the display layer of the claimed electronic label.

The circuitry of Comiskey '578 is not an RFID layer, as claimed. The Comiskey '578 reference merely discloses a display system that can *receive* information via radio signals, but cannot *transmit* radio signals. The circuitry in Comiskey '578 merely *receives* information and then updates the display via non-radio means. The display is not updated via the transmission of radio signals, but rather through directly addressing the display electronically. Therefore, the circuitry is not an RFID layer.

The Radio Frequency Identification (RFID) capability of label of the claimed invention may be located on a separate layer from the electronics layer or may be on the same layer. The use of the word RFID is intended to provide a generally acceptable term, of which one major accepted functionality is a method for electronically and uniquely identifying the item to which the RFID tag gets attached, similar to the functionality of a bar code. An RFID tag must also conform to other standards and capabilities. Each RFID enabled label system has a unique ID number put into it during manufacture.

Radio Frequency Identification (RFID), as claimed, is different and unique from the subject matter taught in the Comiskey, '578 reference. The Comiskey '578 reference only

describes the ability to receive radio signals. The "ID" (identification) portion of RFID requires the ability of an RFID device to respond ("transmit") back a signal identifying itself once it "receives" a signal asking it to identify itself. Certain RFID devices are also capable of sending back additional information in addition to the ID number. As set forth in the claims, a label employing RFID can also send (transmit) back this additional information. In contrast, Comiskey's invention cannot transmit back anything. Comiskey's devices cannot therefore be RFID compatible devices. At the time of the invention it would not be obvious that one could put a transmitting device in the thin, flexible format of the claimed label assembly.

In addition; there is no disclosure that the circuitry that the Examiner considers to be an RFID layer is *stacked* with a display layer and an integrated circuit layer, as further recited in claim 48.

The only transmitters disclosed in Comiskey '578 include a transmitter 370 shown in Figure 6A that is clearly separate from the display and is not a *layer* capable of being stacked with a display layer and an integrated circuit layer to form an electronic label, as recited in claim 48. In addition, the data receiver 1006 in Figure 10 is not formed as a layer stacked with the display 1004, as recited in claim 48. Therefore, the Comiskey '578 label system does not include a RFID layer, as recited in claim 48, and is not comprised of three stacked layers, with an integrated circuit layer in the middle and a display layer and RFID layer on either side, as also recited in claim 48.

Claim Rejections Under 35 USC § 103

The Examiner rejects claims 28-39 under 35 USC § 103(a) as being unpatentable over the Comiskey et al. reference (U.S. Patent Number 6,639,578) and Giordano (U.S. Patent Number 5,715,622). Applicant respectfully traverses the rejection and submits that the pending claims distinguish patentably over the cited references.

According to the Examiner, because the Giordano reference discloses a display module connected to a shelf, the claimed invention is obvious. However, even in combination, the Comiskey '578 reference and the Giordano reference fail to disclose the claimed invention. Furthermore, there is no motivation to combine the references to render the claimed invention obvious.

The Giordano reference discloses a rigid, bulky electronic display module. The Giordano display module includes an antenna 24 positioned “outside of shelf rail 12” (see column 3, lines 46-48), which is not connected to the shelf, as recited in claim 28. Furthermore, the antenna 24 in Giordano is not a “flexible strip”, as also recited in claim 28. Rather, the antenna 24 in Giordano appears to be a rigid chip.

In addition, the antenna 24 of Giordano is integrally formed inside of the label. In contrast, the claimed system includes a label externally *coupled* to the antenna. (See Figure 9 of the present application.)

As previously submitted, the Comiskey ‘578 reference also does not teach or suggest that the antenna 302 shown in Figures 6A can be in the form of a *flexible strip*, as recited in claim 28.

The fact that the Giordano reference discloses a module that is mounted to a shelf does not mean that the antenna of the Comiskey ‘578 reference is a flexible strip that can be connected to a *shelf*, as recited in claim 28. Therefore, even in combination, the Giordano reference and the Comiskey reference fail to anticipate the claimed invention. The use of an antenna strip connected to a shelf and an electronic label capable of being coupled to the antenna strip allows for removal and/or reconfiguration of the electronic label relative to the shelf, without requiring modification of the antenna or shelf, a feature that is lacking in the cited prior art.

In addition, the subject matter of the Giordano reference is not readily or obviously combinable with the subject matter of the Comiskey ‘578 reference. For example, the Giordano reference requires a liquid crystal display (LCD), while the Comiskey ‘578 reference is directed to encapsulated electrophoretic media. The LCD is not readily interchanged with the claimed electronic ink or the encapsulated electrophoretic media of Comiskey ‘578. Therefore, it would not be obvious to combine the teachings of the two references, and there is no motivation in either reference to support the combination of the references in rendering the rejection.

Therefore, the rejection of claims 28-39 under 35 USC § 103(a) should be reconsidered and withdrawn.

The Examiner also rejects claims 40 and 42-45 under 35 USC § 103(a) as being unpatentable over the Comiskey et al. reference (U.S. Patent Number 6,639,578) in view of the Hobson et al. reference (U.S. Patent Number 5,445,906). Applicant traverses the rejection and submits that there is no motivation to use the battery described in Hobson with the Comiskey media. The Examiner has not provided an objective motivation for combining the references. Therefore, the combination and rejection under 35 USC § 103(a) is improper.

Furthermore, neither reference discloses a battery that is rechargeable via *ambient power in the environment*, as now recited in claim 40.

New Claims

New claims 50 and 51 have been added to more fully capture the instant invention and are also allowable over the cited prior art. Claims 50 and 51 recite collective, functional consequences that are not found in the cited references. In particular, the cited references fail to teach or suggest a label providing a combination that is cooperatively operable to activate an electronic ink comprising a bi-stable non-volatile imaging material and/or an arrangement of microcapsules filled with an electrophoretic composition and a suspension of particles to create and display indicia *independent of maintenance of power from a power source* on the label to cause the imaging material to provide enduring activation thereof *independent of maintenance of signals* for instructing the imaging material to display the indicia, with the electronic ink allowing the display formed by the imaging material to remain stable and visible.

For at least the foregoing reasons, Applicant respectfully submits that all pending claims distinguish patentably over the cited references and requests that the rejections be reconsidered and withdrawn.


CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue. If, however, the Examiner considers that obstacles to allowance of these claims persist, we invite a telephone call to Applicant's representative at the telephone number listed below.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 12-0080, under Order No. VTW-007 from which the undersigned is authorized to draw.

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Respectfully submitted,

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